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<p>(21) International Application Number: PCT/EP97/05378</p> <p>(22) International Filing Date: 15 September 1997 (15.09.97)</p> <p>(71) Applicant (for all designated States except US): PASTEUR MERIEUX MSD [FR/FR]; 8, rue Jonas-Salk, F-69367 Lyon (FR).</p> <p>(72) Inventors; and</p> <p>(75) Inventors/Applicants (for US only): ARMINJON, François [FR/FR]; 35, chemin du Bois Roux, F-69300 Caluire (FR). CARTIER, Jean-René [FR/FR]; 55, rue Joliot Curie, F-69005 Lyon (FR). LENTSCH-GRAF, Sandrine [FR/FR]; 10, rue Janin, F-69004 Lyon (FR). MARCHAL, Laurent [FR/FR]; 6, avenue du Maréchal Joffre, F-68100 Mulhouse (FR).</p> <p>(74) Agent: AYROLES, Marie-Pauline; Pasteur Merieux Sérums &amp; Vaccins, Direction de la Propriété Industrielle, 58, avenue Leclerc, F-69007 Lyon (FR).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> With international search report.</p>
<p>(54) Title: MULTIVALENT VACCINES</p> <p>(57) Abstract</p> <p>A multi-component vaccine composition is described comprising a cellular pertussis vaccine components (PT and FHA), diphtheria toxoid (DT), tetanus toxoid (TT), a conjugate of a capsular polysaccharide of <i>Haemophilus influenzae</i> type b and tetanus toxoid or diphtheria toxoid (Hib), Hepatitis B Surface Ag (HBsAg) and inactivated poliovirus (IPV). The composition may comprise the above compounds in a single solution, or certain components may be reconstituted from a lyophilized state by the other components of the vaccine. The administration of the multiple component vaccine resulted in no diminution in the immunogenicity of any component as a result of interference by other components of the vaccine.</p>		